AMSAT News Service Weekly Bulletins
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SB ALL @ AMSAT $ANS-097.01
AMSAT AT DAYTON HAMVENTION

HR AMSAT NEWS SERVICE BULLETIN 097.01 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Planning To Be Present At Dayton Hamvention '90

AMSAT-NA Vice President of Field Operations, Jack Crabtree (AA0P) invites all radio amateurs to join AMSAT this year at the Dayton Hamvention on April 27-29, 1990. As has been the tradition for many years, AMSAT will have a booth and will be sponsoring Symposiums on Friday and Saturday. On Friday, the Symposium will focus on the Shuttle Amateur Radio Experiment-2 (SAREX-2) mission with speakers Roy Neal (N6DUE) and Bill Tynan (W3XO). They will be discussing the upcoming STS-35 mission with Ron Parise (WA4SIR) who will operate both 2M voice and packet radio. On Saturday, AMSAT-NA President and General Manager Doug Loughmiller (KO5I) will be the speaker for a Symposium titled "1990: The Year of The Amateur Radio Satellite." This discussion will give a complete run down of all the amateur satellites launched so far this year and what is being planned for the future. Also, Bob McGwier (N4HY) and Jan King (W3GEY) will give a summary of the MICROSAT program. Before and after these Symposiums, all radio amateurs are invited to come by the AMSAT booth to "talk to the experts." Many of the AMSAT-NA Officers and Board of Directors will be present throughout the Dayton Hamvention. Stay tuned next week to the AMSAT News Service (ANS) bulletins for further details about the AMSAT activities planned for the Dayton Hamvention.

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SB ALL @ AMSAT $ANS-097.02
W5UN'S EME ARRAY DESTROYED

HR AMSAT NEWS SERVICE BULLETIN 097.02 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

Tornado Destroys W5UN's Huge EME Array

AMSAT-NA officials learned this week of the destruction of Dave Blanschke's (W5UN) world famous Earth-Moon-Earth (EME) moonbounce array due to a tornado that touched down at his QTH located near Houston, TX. Many will remember the January '89 QST article spotlighting Dave's EME system and the enormous effort he put into building the world's largest privately owned 2M EME array. Most recently, OSCAR users heard that W5UN assisted AMSAT when it needed all of the 32.5 dBi gain generating about 2 Megawatts EIRP from his moonbounce station to reset the On-Board Computer (OBC) of DOVE-OSCAR-17 (DO-17) three weeks ago. (Due to a software crash, DOVE'S 2M transmitter was overloading the command receiver.) The signal from W5UN's EME station was able to silence DOVE's 2M transmitter. After several tries, W5UN was able to send the reset command allowing N4HY and NK6K to regain control of DOVE and it's battery maintenance system. In all respects, W5UN's EME installation was an exemplary amateur radio station becuse of its ingenious design. W5UN suffered the nightmare that every amateur fears: Total destruction of an antenna system and the years of effort spent building an excellent station. AMSAT-NA would like to express its deepest regrets for W5UN's loss along with its greatest appreciation for his help during the critical period when the DO-17 OBC needed to be reset.

As a final note, W5UN will still be keeping EME schedules using the station of N5BLZ.

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SB ALL @ AMSAT $ANS-097.03
FIRST 9600 BAUD TRAFFIC THRU UO-14

HR AMSAT NEWS SERVICE BULLETIN 097.03 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

High speed satellite data communication record set.

cmd:C G0K8KA v UOSAT3-1
cmd:*** CONNECTED to G0K8KA VIA UOSAT3-1 [04-Apr-90 22:12:03]

Hi Jeff - a world first??? >>>>
What say
Yes - a bit pedestrian, but what do you expect for a first cut...
Yes, but my tnc doesn't seem too happy with it!
Hmmm - shall I send you the file??? >>>>
I gotta check some asynchronous tlm, so will have to suspend the
pce for a bit. Sorry ....
Yes, try to send it. now>> (* Phew! *)
OK will send. (* So I did *)

This is the first transaction to be digipeated through Oscar-14 at 9600 baud between James Miller, G3RUH and Jeff Ward, G0K8KA. The date and time are 1990 Apr 04 at 2215 UTC, orbit number 1041. This is believed to be the fastest data transmission through an amateur satellite to date.

UoSat-D is on 9600 baud for about 1.5 minutes every 5 minutes, sometimes longer. This signal sounds very like an unsquelched background hiss. However the squelch will be triggered as normal. To determine if UO-14 is in 9600 baud mode look for d:1 in the LSTAT telemetry frame. This means the high speed digi is ON. d:0 means it is OFF. This is the same convention as in the Microsats because the same software is in use for these tests. The downlink frequency was 435.070 Mz, +/- 10 kHz doppler shift. As FM was used, only occasional manual adjustments were needed to the receiver. The uplink frequency used was 145.975 MHz.

Equipment at both ends was FT736R with TX audio direct connected to the varactor, and RX audio directly connected from the discriminator. James reports that the two non-destructive additions to the FT736R took about 30 minutes to implement. Using similar techniques, many of today's commercial transceivers can be modified to allow for similar high speed data communication. A 9600 baud full duplex modem is required to drive the tranceiver and a number of designs are commercially available at present. A comprehensive article describing the G3RUH design is published in the ARRL 7th Computer Networking Conference Papers, Oct 1988, pages 135-140. It can be obtained from ARRL, RSGB and other Society bookshops.

[AMSAT wishes to thank G3RUH for the information for this bulletin and also congratulates James and Jeff for their record setting accomplishment].

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SB ALL @ AMSAT $ANS-097.04
ORBS$ BULLETIN CHANGES

HR AMSAT NEWS SERVICE BULLETIN 097.04 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

Satellite Keplerian Elements to be Broken into Additional Groups

AMSAT's Orbital Data Manager Dick Campbell, N3FKV, announced that this week's release of current orbital elements will be split into more categories. The bulletin ORBS-xxx.O (OSCAR) will contain AO-10, UO-11, RS-10/11, AO-13 and FO-20. These are the satellites with wide band transponders used predominantly for CW, SSB and RTTY communications. The bulletin ORBS-xxx.D (MICROS) will contain UO-14, AO-16, DO-17, WO-18, and LO-19. These satellites are "digital" in nature, using packet communication as the primary modulation technique. The bulletins ORBS-xxx.M (for Manned and Miscellaneous) and ORBS-xxx.W (for weather satellites) will continue to be published in their present format.

Dick indicated that this move is taken to further relieve congestion on packet circuits and allow shorter downloads for users who are interested in only one class of satellites.

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SB ALL @ AMSAT $ANS-097.05
JAMSAT ELECTS NEW BOD & OFFICERS

HR AMSAT NEWS SERVICE BULLETIN 097.05 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

Japan AMSAT Organization (JAMSAT) Elects New Board of Directors & Officers

At the 1990 Annual Meeting of Japan AMSAT Association (JAMSAT) that was held on March 18, 1990 in Tokyo the following Board of Directors (BOD) were elected and will serve until 1992:

    * JK1VXJ Moriyoshi Ohara
    # JM1MCF Yuutai Katou
    * JQ1HXT Shinichi Sudo
    # JR1FIG Masaya Fukasawa
    # JR1ING Youichi Kikukawa
    # JR1SWB Mikiyasu Nakayama
    # JA2PKI Takeo Okamoto
    * JG3XOD Toshihiro Sugimoto
    # JH3BJN Sumio Nakane
    # JM3MAJ Hiroyuki Oohata
    # JA6XKQ Yoshiyuki Takeyasu

  # Elected Board of Directors
  * Nominated by elected Board of Directors

Officers for the 1990-1992 period are:

    President   - JA2PKI, Takeo Okamoto
    Vice President - JR1SWB, Mikiyasu Nakayama
    Vice President - JH3BJN, Sumio Nakane
    Auditor   - JH1CMP, Morizo Iseki

The Board of Directors has established the following goals that they will be working to achieve during the next two years:

1. Transfer of most clerical tasks from volunteer team to a professional organization.

2. Resumption of a membership recruitment campaign.

3. Participation in future OSCAR projects.

4. Improvement of satellite users support.

[ANS would like to thank JA3PKI for providing this information.]

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SB ALL @ AMSAT $ANS-097.06
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 097.06 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970. All nets in the current cycle occur on Saturday U. S. time.

Date UTC	Time	Phs	Mode	NCS
15 Apr 90	0210	168	J/L	N5BF
22 Apr 90	0400	127	B	N5BF
28 Apr 90	1300	221	B	N5BF
06 May 90	0145	168	J/L	N5BF

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, or phone (301) 589-6062, or contact your local AMSAT Area Coordinator.

/EX
SB ALL @ AMSAT $ANS-097.07
AO-13 OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 097.07 FROM AMSAT HQ
SILVER SPRING, MD APRIL 7, 1990
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AO-13 Transponder Schedule to 07May90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis : MA 240 to MA 060

BLON = 207.8 and BLAT = 0.6 for 16Apr90

The Mode-B beacon will be ON from MA 195 to MA 200. Only the Mode-S transponder & the Mode-B beacon will be ON from MA 195 to MA 200. Beginning 07May90 there will be a transponder and attitude change on AO-13. During magnetorquing to BLON/BLAT 180/0 the transponders will be switched off from MA200 to MA060. After 09May90 a new schedule will be announced.

AO-10 is currently experiencing poor solar panel illumination angles and until further notice its transponder is not available for use. It is expected that this will continue for at least another 4 to 6 weeks.

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